

# Bemidji State University

## CHEM 3570: Analytical Chemistry Laboratory

### A. COURSE DESCRIPTION

Credits: 1

Lecture Hours/Week: \*.\*

Lab Hours/Week: \*.\*

OJT Hours/Week: \*.\*

Prerequisites: None

Corequisites: None

MnTC Goals: None

Laboratory applications of analytical instrumentation to chemical analysis. Prerequisites: CHEM 1112 or CHEM 2212, CHEM 3507 (may be corequisite).

**B. COURSE EFFECTIVE DATES:** 08/02/2010 - Present

### C. OUTLINE OF MAJOR CONTENT AREAS

1. Atomic Absorption Spectroscopy Analysis of Calcium
2. Determination of Potassium Acid Phthalate in an Impure Sample
3. Determination of Soda Ash Content of an Impure Sample
4. Determination of Manganese in a Steel Alloy
5. Hardness of Water using EDTA & Color Indicators
6. Polarimetry of a Sugar Unknown
7. Spectrophotometric Analysis of Iron with Ortho-Phenanthroline

### D. LEARNING OUTCOMES (General)

1. practice and assess quantitative measurements and their analyses and competency in scientific communication.

### E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

None

### F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

### G. SPECIAL INFORMATION

None noted